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EXAMINER
FORMAN, BETTY J

ART UNIT	PAPER NUMBER
1634	

DATE MAILED: 11/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 March 2002* .

2a)☐ This action is **FINAL.** 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44* is/are pending in the application.

4a) Of the above claim(s) *17-44* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☒ Claim(s) *3,6 and 7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3* .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1.   Applicant's election with traverse of Group I with respect to Groups III and V and without traverse with respect to Groups II, IV and VI in Paper No. 5 is acknowledged.   The traversal is on the ground(s) that it would not be a serious burden on the examiner to search the inventions of Groups III and V along with the invention of Group I because the independent claims of Groups III and V recite steps (a) and (b) of Claim 1.   This is not found persuasive because it is maintained that undue burden would be required to examine the claims of groups III and V along with claims of group I as evidenced by the fact that the claims of groups I, III and V have acquired a separate status in the art as recognized by their different classifications as recognized by their divergent subject matter and because a search of the subject matter of invention I is not co-extensive with a search of inventions III and V. Specifically, a search of the subject matter of Invention I encompasses a search of method of generating array, array components, and method of shipping arrays and array components. In contrast, a search of the subject matter of Invention III would encompass array fabricators, memory processing components and memory functions and a search of the subject matter of Invention V would encompass computer programs, computer program products, and computer program product functions.   As such, a search for the subject matter of Invention I would not be co-extensive with the search for the subject matter of Inventions III and/or V.

In response to Applicant's comments on page 3: Applicant seems to be stating that following restriction, a single reference cannot anticipate or obviate more than one of the restricted groups.   In other words, Applicant is stating that a reference cannot teach more than one invention.   Contrary to Applicant's assertion, a reference can teach more than one invention as evidenced by the instant application which teaches at least three inventions.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-16 are currently under prosecution.

Priority

2.   Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged. The

Provisional Application filed 30 March 2001 upon which priority is claimed provides adequate

support under 35 U.S.C. 112 for claims 1-16 of this application.

Information Disclosure Statement

3.   The references listed on the 1449 received 25 March 2002 have been reviewed and

considered. A copy of the signed 1449 is enclosed with this action.

Claim Objections

4.   The following claims are objected to for minor informalities.

a. Claim 3 is objected to because it depends from itself.   For purposes of examination,

the claim is interpreted as depending from Claim 2.

b. Claim 3 is further objected to because "identifier" is misspelled in line 1.

c. Claim 6 is objected to because "datafrom" is presented as one word.

d. Claim 7 is objected to because it depends from Claim 31. For purposes of

examination, the claim is interpreted as depending from Claim 3.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6.   Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claim 1is indefinite for the recitation "which array related data may comprise any of data on a characteristic of the fabricated array, an instruction for reading an array, or an instruction on processing data from a read array" because it is unclear whether the data is limited to the three types of "array related data" listed.   The recitation is further indefinite because "read array" is not understood in the context of the claim. It is suggested that Claim 1 be amended to clearly define the "array related data" as described in the specification.

b. Claim 1 is indefinite for the recitation "forwarding the array related data to a remote location" because "remote" is a non-specific relational term.   Therefore, it is unclear in what relationship the array related data is remote i.e. it is unclear whether the data is remote from the place or origin and/or the array and/or the user.

c. Claims 2-8 are indefinite in Claim 2 for the recitation "which array related data may comprise any of data on a characteristic of the fabricated array, an instruction for reading an array, or an instruction on processing data from a read array" because it is unclear whether the data is limited to the three types of "array related data" listed.   The recitation is further indefinite because "read array" is not understood in the context of the claim. It is suggested that Claim 2 be amended to clearly define the "array related data" as described in the specification.

d. Claims 2-8 are indefinite in Claim 2 for the recitation "forwarding the array related data to a remote location" because "remote" is a non-specific relational term. Therefore, it is unclear in what relationship the array related data is remote i.e. it is unclear whether the data is remote from the place or origin and/or the array and/or the user. It is suggested that Claim 2 be amended to clarify.

e. Claims 2-8 are indefinite in Claim 2 for the recitation "which array related data is saved in association with an identifier" because "in association with" is a non-specific relational phrase. Therefore the relationship between the data and the identifier are undefined. It is suggested that Claim 2 be amended to define the relationship.

f. Claims 2-8 are indefinite in Claim 2 for the recitation "associating the identifier with an array" because "associating" is a non-descriptive activity. Therefore, it is unclear what activity is required to perform the method step. Method claims need not recite all operating details but should at least recite positive, active steps so that the claims will set out and circumscribe a particular area with a reasonable degree of precision and particularity and make clear what subject matter the claims encompass as well as make clear the subject matter from which others would be precluded. *Ex parte Erlich*, 3 USPQ2d 1011 at 6.

g. Claims 3-6 and 9 are indefinite in Claim 3 for the recitation "the identifier is associated with the array" because "associated with" is a non-specific relational phrase. Therefore the relationship between the identifier and array is not defined. It is suggested that Claim 3 be amended to define the relationship.

h. Claim 6 is indefinite for the recitations "to a remote location" and "from a remote location" because "remote" is a non-specific relational term but it is unclear within what relationship the locations are remote. It is suggested that Claim 6 be amended to define or describe "remote location" as taught in the specification.

i. Claim 7 is indefinite for the recitation "to a remote location" because "remote" is a non-specific relational term but it is unclear within what relationship the locations are remote.

It is suggested that Claim 7 be amended to define or describe "remote location" as taught in the specification.

j. Claim 8 is indefinite for the recitations "remote location" because "remote" is a non-specific relational term but it is unclear within what relationship the locations are remote. It is suggested that Claim 8 be amended to define or describe "remote location" as taught in the specification.

k. Claim 9 is indefinite for the recitations "remote location" because "remote" is a non-specific relational term but it is unclear within what relationship the locations are remote. It is suggested that Claim 9 be amended to define or describe "remote location" as taught in the specification.

l. Claim 9 is indefinite for the recitation "the associated map identifier" because the recitation lacks proper antecedent basis in Claim 6. It is suggested that Claim 9 be amended to provide proper antecedent basis. The recitation is further indefinite because "associated" is a non-specific relational term. Therefore, the relationship between the communication and identifier is undefined.

m. Claims 10-16 are indefinite in Claim 10 because the claim is drawn to a method of generating addressable arrays "at a central fabrication station" but the method steps to not limit the method to the claims central fabrication station. Therefore, it is unclear how the recitation limits the claimed method. It is suggested that Claim 10 be amended to clarify.

n. Claims 10-16 are indefinite in Claim 10 for the recitation "which array related data may comprise any of data on a characteristic of the fabricated array, an instruction for reading an array, or an instruction on processing data from a read array" because it is unclear whether the data is limited to the three types of "array related data" listed. The recitation is further indefinite because "read array" is not understood in the context of the claim. It is suggested that Claim 10 be amended to clearly define the "array related data" as described in the specification.

o. Claims 10-16 are indefinite in Claim 10 for the recitation "shipping...to one or more to one or more of the remote location" because "remote" is a non-specific relational term. Therefore, it is unclear within what relationship the arrays are remote i.e. it is unclear whether the arrays are remote from the place or origin and/or the user. The recitation is further indefinite because "the remote location" lacks proper antecedent basis in the claim. It is suggested that Claim 10 be amended to provide proper antecedent basis and to define "remote".

p. Claims 10-16 are indefinite in Claim 10 for the recitation "which array related data is saved in association with a map identifier" because "in association with" is a non-specific relational phrase. Therefore the relationship between the data and the identifier are undefined. It is suggested that Claim 10 be amended to define the relationship.

q. Claims 10-16 are indefinite in Claim 10, step (d) for the recitation "the identifier" because the recitation lacks proper antecedent basis in the "map identifier" of step (c). It is suggested that Claim 10 be amended to provide proper antecedent basis.

r. Claims 10-16 are indefinite in Claim 10, step (d) for the recitations "the corresponding substrate" because "the corresponding" lacks proper antecedent basis in the claim and because "corresponding" is a non-specific relational term. Therefore, the relationship between the "identifier" and the "substrate" is undefined. It is suggested that Claim 10 be amended to define the relationship.

s. Claim 11 is indefinite for the recitation "the chemical moieties" because the recitation lacks proper antecedent basis in the "biopolymers" of Claim 10. It is suggested that Claim 11 be amended to provide proper antecedent basis.

t. Claim 12 is indefinite for the recitation "wherein the polynucleotides are DNA" because the recitation lacks proper antecedent basis in the "biopolymers" of Claim 10. It is suggested that Claim 12 be amended to provide proper antecedent basis. For purposes of examination, the claim is interpreted as being dependent on Claim 11.

u. Claim 14 and 15 are indefinite in Claim 14 for the recitation "the corresponding identity map" because "identify map" and "corresponding identity map" lack proper antecedent basis in Claim 10. It is suggested that the claim be amended to provide proper antecedent basis. The recitation is further indefinite because "corresponding" is a non-specific relational term. Therefore, the relationship between the "multiple arrays" and the "identity map" is undefined. It is suggested that Claim 14 be amended to define the relationship.

v. Claim 14 and 15 are indefinite in Claim 14 for the recitation "associated identifier" because "associated is a non-specific relational term. Therefore the relationship between the "identity map" and "identifier" are undefined. It is suggested that Claim 14 be amended to define the relationship.

w. Claims 14 and 15 are indefinite in Claim 14 for the recitation "remote location" because "remote" is a non-specific relational term but it is unclear within what relationship the locations are remote. It is suggested that Claim 14 be amended to define or describe "remote location" as taught in the specification.

x. Claim 15 is indefinite for the recitation "remote location" because "remote" is a non-specific relational term but it is unclear within what relationship the locations are remote. It is suggested that Claim 15 be amended to define or describe "remote location" as taught in the specification.

y. Claim 15 is indefinite for the recitation "the corresponding fabricated array" because "fabricated array" and "corresponding fabricated array" lack proper antecedent basis in Claim 10 drawn to fabricating multiple arrays. It is suggested that the claim be amended to provide proper antecedent basis. The recitation is further indefinite because "corresponding" is a non-specific relational term. Therefore, the relationship between the "storage medium" and the "fabricated array" is undefined. It is suggested that Claim 15 be amended to define the relationship.

z. Claim 15 is indefinite for the recitation "the set of biopolymers" because the recitation lacks proper antecedent basis in Claim 10. It is suggested that Claim 15 be amended to provide proper antecedent basis.

aa. Claim 16 is indefinite for the recitation "remote location" because "remote" is a non-specific relational term but it is unclear within what relationship the locations are remote. It is suggested that Claim 16 be amended to define or describe "remote location" as taught in the specification.

bb. Claim 16 is indefinite for the recitation "identity map" because "identify map" lacks proper antecedent basis in Claim 10. It is suggested that the claim be amended to provide proper antecedent basis.

c c. Claim 16 is indefinite for the recitation "the associated map identifier" because the recitation lacks proper antecedent basis in Claim 10. The recitation is further indefinite because "associated" is a non-specific relational term. Therefore the relationship between the "communication" and "identifier" are undefined. It is suggested that Claim 16 be amended to define the relationship.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8.   Claims 1-16 are provisionally rejected under 35 U.S.C. 102(e) as being anticipated by copending Application No. 09/775,387 which has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e), if published under 35 U.S.C. 122(b) or patented. This provisional rejection under 35 U.S.C. 102(e) is based upon a presumption of future publication or patenting of the copending application.

This provisional rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. This rejection may not be overcome by the filing of a terminal disclaimer. See *In re Bartfeld*, 925 F.2d 1450, 17 USPQ2d 1885 (Fed. Cir. 1991).

Regarding Claim 1, Cattell discloses a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; saving in a memory array related data said data comprising a characteristic of the array, instructions for reading the array or instruction of processing the array; and shipping the fabricated array and forwarding the array related data to a remote location (¶ 6).

Regarding Claim 2, Cattell discloses a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; saving in a memory array related data said data comprising a characteristic of the array, instructions for reading the array or instruction of processing the array; wherein array related data is saved in association with an identifier; associating the identifier with the array; and shipping the fabricated array and forwarding the array related data to a remote location (¶ 39-41).

Regarding Claim 3, Cattell discloses the method of Claim 2 wherein the identifier is associated with the array by applying the identifier to the substrate or housing carrying the substrate (¶ 40).   For purposes of examination, Claim 3 is interpreted as depending from Claim 2.

Regarding Claim 4, Cattell discloses the method wherein the chemical moieties are biopolymers (¶ 24).

Regarding Claim 5, Cattell discloses the method wherein the biopolymers are DNA (¶ 24).

Regarding Claim 6, Cattell discloses the method wherein the memory is a database and the method additionally comprises retrieving the array related data from the memory and communicating the retrieved data to a remote location in response to receiving a communication of the identifier from the remote location (¶ 36- 40).

Regarding Claim 7, Cattell discloses the method wherein the memory comprises a portable storage medium, the method further comprising shipping the portable medium to a remote location e.g. bar codes illustrated in Fig. 1, # 356 and 358 (¶ 40 and Fig. 6).

Regarding Claim 8, Cattell discloses the method wherein the portable storage medium is shipped to the same remote location as the array (¶ 40 and Fig. 6).

Regarding Claim 9, Cattell discloses the method further comprising applying a communication address to the substrate or housing wherein the address identifies a remote location from which the identity map will be communicated in response to a received communication of the associated map identifier (¶ 40).

Regarding Claim 10, Cattell discloses a method of generating, at a central fabrication station, an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; saving in a memory array related data said data comprising a characteristic of the array, instructions for reading the array or instruction of processing the array; wherein array related data is saved in

association with a map identifier; applying the identifier to the corresponding substrate or

housing carrying the corresponding substrate; and shipping the fabricated array and

forwarding the array related data to a remote location (¶ 27 and 40).

Regarding Claim 11, Cattell discloses the method wherein the chemical moieties are

biopolymers (¶ 24).

Regarding Claim 12, Cattell discloses the method wherein the biopolymers are DNA (¶

24).

Regarding Claim 13, Cattell discloses the method wherein the memory is a database the

method additionally comprising retrieving the array related data for arrays from the memory

and communicating the data to a remote locations in response to receiving a communication of

associated identifiers from the remote location (¶ 36-40).

Regarding Claim 14, Cattell discloses the method wherein for each of the multiple array

the corresponding identify map and associated identifier are saved on a memory comprising a

portable computer readable storage medium the method additionally comprising shipping the

portable storage mediums to multiple remote locations (¶ 40 and Fig. 6).

Regarding Claim 15, Cattell discloses the method wherein each of the portable storage

mediums are shipped with the corresponding fabricated array to the same remote location from

which the set of biopolymers used in fabricating the array was received (¶ 40 and Fig. 6).

Regarding Claim 16, Cattell discloses the method further comprising applying a same

communication address to each of the substrates or housings wherein the address identifies a

remote location from which the identity map will be communicated in response to a received

communication of the associated map identifier (¶ 40).

9.   Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Cattell, H. (U.S.

Patent No. 6,180,351, filed 22 July 1999).

The applied reference has a common inventor with the instant application. Based upon

the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C.

102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37

CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the

inventor of this application and is thus not the invention "by another," or by an appropriate

showing under 37 CFR 1.131.

Regarding Claim 1, Cattell discloses a method of generating an addressable array of

chemical moieties on a substrate comprising: depositing the moieties onto different regions of

the substrate so as to fabricate the array (Column 2, line 60-Column 3, line 5 and Claim 1);

saving in a memory array related data said data comprising a characteristic of the array,

instructions for reading the array or instruction of processing the array (Column 4, lines 33-43

and Claim 12); and shipping the fabricated array and forwarding the array related data to a

remote location (Column 3, line 55-Column 4, line 9 and Claims 10-11).

Regarding Claim 2, Cattell discloses a method of generating an addressable array of

chemical moieties on a substrate comprising: depositing the moieties onto different regions of

the substrate so as to fabricate the array (Column 2, line 60-Column 3, line 5 and Claim 1);

saving in a memory array related data said data comprising a characteristic of the array,

instructions for reading the array or instruction of processing the array (Column 4, lines 33-43

and Claim 12); wherein array related data is saved in association with an identifier (Column 4,

lines 33-43); associating the identifier with the array (Column 4, lines 34-37 and Claim 12);

and shipping the fabricated array and forwarding the array related data to a remote location

(Column 3, line 55-Column 4, line 9 and Claims 10-11).

Regarding Claim 3, Cattell discloses the method of Claim 2 wherein the identifier is

associated with the array by applying the identifier to the substrate or housing carrying the

substrate (Column 3, line 64-Column 4, lines 2).   For purposes of examination, Claim 3 is

interpreted as depending from Claim 2.

Regarding Claim 4, Cattell discloses the method wherein the chemical moieties are

biopolymers (Column 2, lines 60-64 and Claim 3).

Regarding Claim 5, Cattell discloses the method wherein the biopolymers are DNA

(Column 2, lines 60-64 and Claim 4).

Regarding Claim 6, Cattell discloses the method wherein the memory is a database and

the method additionally comprises retrieving the array related data from the memory and

communicating the retrieved data to a remote location in response to receiving a

communication of the identifier from the remote location (Column 3, lines 28-43 and Column

12, lines 39-43).

Regarding Claim 7, Cattell discloses the method wherein the memory comprises a

portable storage medium, the method further comprising shipping the portable medium to a

remote location e.g. bar codes illustrated in Fig. 4, # 356 and 358 (Column 9, lines 65-Column

10, line 4).

Regarding Claim 8, Cattell discloses the method wherein the portable storage medium

is shipped to the same remote location as the array (Column 9, lines 65-Column 10, line 4).

Regarding Claim 9, Cattell discloses the method further comprising applying a

communication address to the substrate or housing wherein the address identifies a remote

location from which the identity map will be communicated in response to a received

communication of the associated map identifier (Column 10, line 65-Column 50).

Regarding Claim 10, Cattell discloses a method of generating, at a central fabrication

station, an addressable array of chemical moieties on a substrate comprising: depositing the

moieties onto different regions of the substrate so as to fabricate the array (Column 2, line 60-

Column 3, line 5 and Claim 1); saving in a memory array related data said data comprising a

characteristic of the array, instructions for reading the array or instruction of processing the

array (Column 4, lines 33-43 and Claim 12); wherein array related data is saved in association

with a map identifier (Column 4, lines 33-43); applying the identifier to the corresponding

substrate or housing carrying the corresponding substrate (Column 4, lines 34-37 and Claim

12); and shipping the fabricated array and forwarding the array related data to a remote

location (Column 3, line 55-Column 4, line 9 and Claims 10-11 and Claim 14).

Regarding Claim 11, Cattell discloses the method wherein the chemical moieties are

biopolymers (Column 2, lines 60-64 and Claim 3).

Regarding Claim 12, Cattell discloses the method wherein the biopolymers are DNA

(Column 2, lines 60-64 and Claim 4).

Regarding Claim 13, Cattell discloses the method wherein the memory is a database the

method additionally comprising retrieving the array related data for arrays from the memory

and communicating the data to a remote locations in response to receiving a communication of

associated identifiers from the remote location (Column 3, lines 28-43 and Column 12, lines

39-43).

Regarding Claim 14, Cattell discloses the method wherein for each of the multiple array

the corresponding identify map and associated identifier are saved on a memory comprising a

portable computer readable storage medium the method additionally comprising shipping the

portable storage mediums to multiple remote locations (Column 9, lines 65-Column 10, line 52

and Claim 14)

Regarding Claim 15, Cattell discloses the method wherein each of the portable storage

mediums are shipped with the corresponding fabricated array to the same remote location from

which the set of biopolymers used in fabricating the array was received (Column 3, line 55-

Column 4,line 10).

Regarding Claim 16, Cattell discloses the method further comprising applying a same

communication address to each of the substrates or housings wherein the address identifies a

remote location from which the identity map will be communicated in response to a received

communication of the associated map identifier (Column 10, line 65-Column 50 and Claim 14

(d) shipping each of the fabricated arrays....**to one** or more of the remote locations, lines 36-

63).

Claim Rejections - 35 USC § 103

10.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject
> matter sought to be patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not be negatived by
> the manner in which the invention was made.

11.   Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perttunen

et al (U.S. Patent No. 5,968,728, issued 19 October 1999) in view of Ellison et al (U.S. Patent

Application Publication No. 2002/0086319A1, filed 13 November 2000).

Regarding Claim 1, Perttunen et al teach a method of generating an addressable array

of chemical moieties on a substrate comprising: depositing the moieties onto different regions

of the substrate so as to fabricate the array; saving in a memory array related data said data

comprising a characteristic of the array, instructions for reading the array or instruction of

processing the array (Column 7, line 40-Column 8, line 62) wherein the array and array related

data is utilized by an end user (Column 8, lines 38-41 and Column 9, lines 63-Column 10,

lines 2) which clearly suggests that the array is sent from the place of origin but they do not

specifically teach shipping the fabricated array and forwarding the array related data to a

remote location.   However, shipping arrays to end users was well known in the art at the time

the claimed invention was made as taught by Ellison et al.   Ellison et al teach a similar

method for generating an addressable array of chemical moieties comprising depositing

moieties onto different regions of the substrate, saving in a memory array related data and shipping the array and forwarding the array related data to a remote location i.e. to shipping address contained in the machine readable information (¶ 8). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.

Regarding Claim 2, Perttunen et al teach a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; saving in a memory array related data said data comprising a characteristic of the array, instructions for reading the array or instruction of processing the array wherein the array related data is saved in association with an identifier i.e. id code; associating the identifier with the array (Column 7, line 40-Column 8, line 62, Fig. 10, # 112 & 114, Fig. 11, # 132 & 136 and Fig. 12, # 146) wherein the array and array related data is utilized by an end user (Column 8, lines 38-41 and Column 9, lines 63-Column 10, lines 2) which clearly suggests that the array is sent from the place of origin but they do not specifically teach shipping the fabricated array and forwarding the array related data to a remote location. However, shipping arrays to end users was well known in the art at the time the claimed invention was made as taught by Ellison et al. Ellison et al teach a similar method for generating an addressable array of chemical moieties comprising depositing moieties onto different regions of the substrate, saving in a memory array related data and shipping the array and forwarding the array related data to a remote location i.e. to shipping address contained in the machine readable information (¶ 8). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end

user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.

Regarding Claim 3, Perttunen et al teach the method of Claim 2 wherein the identifier is associated with the array by applying the identifier to the substrate or housing carrying the substrate (Column 4, line 61-Column 5, line 7 and Fig. 10-12). For purposes of examination, Claim 3 is interpreted as depending from Claim 2.

Regarding Claim 4, Perttunen et al teach the method wherein the chemical moieties are biopolymers (Column 4, lines 13-26).

Regarding Claim 5, Perttunen et al teach the method wherein the biopolymers are DNA (Column 4, lines 13-26).

Regarding Claim 6, Perttunen et al teach the method wherein the memory is a database and the method additionally comprises retrieving the array related data from the memory and communicating the retrieved data to a remote location in response to receiving a communication of the identifier from the remote location (Column 8, lines 38-54).

Regarding Claim 7, Perttunen et al teach the method wherein the memory comprises a portable storage medium e.g. bar code, the method further comprising shipping the portable medium to a remote location to the end user (Column 7, line 40-Column 8, line 62, Fig. 10, # 112 & 114, Fig. 11, # 132 & 136 and Fig. 12, # 146).

Regarding Claim 8, Perttunen et al teach the method wherein the portable storage medium is shipped to the same remote location as the array i.e. user (Column 8, lines 35-42).

Regarding Claim 9, Perttunen et al teach the method wherein the substrate has applied thereto array related data e.g. identification code (Column 8, lines 1-19) but they do not teach the identification code comprises a communication address. However, Ellison et al teach the similar method of generating an array wherein the array has applied thereto identification code including a communication address from with the identity map will be communicated i.e. customer (¶ 8) wherein the address on the substrate identifies customer and/or billing

information.   It would have been obvious to one of ordinary skill in the art at the time the

claimed invention was made to include the communication address as taught by Ellison et al

in the identification code on the substrate of Perttunen et al to thereby identify customer via

the address as taught by Ellison et al (¶ 8).

Regarding Claim 10, Perttunen et al teach a method of generating, at a central

fabrication station, an addressable array of chemical moieties on a substrate comprising:

depositing the moieties onto different regions of the substrate so as to fabricate the array;

saving in a memory array related data said data comprising a characteristic of the array,

instructions for reading the array or instruction of processing the array wherein the array

related data is saved in association with an identifier i.e. id code; applying the identifier to the

corresponding substrate or corresponding housing (Column 7, line 40-Column 8, line 62, Fig.

10, # 112 & 114, Fig. 11, # 132 & 136 and Fig. 12, # 146) wherein the array and array related

data is utilized by an end user (Column 8, lines 38-41 and Column 9, lines 63-Column 10,

lines 2) which clearly suggests that the array is sent from the place of origin but they do not

specifically teach shipping the fabricated array and forwarding the array related data to a

remote location.   However, shipping arrays to end users was well known in the art at the time

the claimed invention was made as taught by Ellison et al.   Ellison et al teach a similar

method for generating an addressable array of chemical moieties comprising depositing

moieties onto different regions of the substrate, saving in a memory array related data and

shipping the array and forwarding the array related data to a remote location i.e. to shipping

address contained in the machine readable information (¶ 8).   It would have been obvious to

one of ordinary skill in the art at the time the claimed invention was made to apply the

shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end

user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and

availability.

Regarding Claim 11, Perttunen et al teach the method wherein the chemical moieties are biopolymers (Column 4, lines 13-26).

Regarding Claim 12, Perttunen et al teach the method wherein the biopolymers are DNA (Column 4, lines 13-26).

Regarding Claim 13, Perttunen et al teach the method wherein the memory is a database the method additionally comprising retrieving the array related data for arrays from the memory and communicating the data to a remote locations in response to receiving a communication of associated identifiers from the remote location Column 8, lines 38-54).

Regarding Claim 14, Perttunen et al teach the method wherein for each of the multiple array the corresponding identify map and associated identifier are saved on a memory comprising a portable computer readable storage medium wherein the array is used by an end user (Column 7, line 40-Column 8, line 62, Fig. 10, # 112 & 114, Fig. 11, # 132 & 136 and Fig. 12, # 146) but they do not specifically teach shipping the portable storage mediums to multiple remote locations. However, shipping arrays to end users was well known in the art at the time the claimed invention was made as taught by Ellison et al. Ellison et al teach a similar method for generating an addressable array of chemical moieties comprising depositing moieties onto different regions of the substrate, saving in a memory array related data and shipping the array and forwarding the array related data to a remote location i.e. to shipping address contained in the machine readable information (¶ 8). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.

Regarding Claim 15, Perttunen et al teach the method wherein each of the portable storage mediums and the corresponding fabricated array are used by the at the same remote

location i.e. end user from which the set of biopolymers used in fabricating the array was received (Column 7, line 40-Column 8, line 62).

Regarding Claim 16, Perttunen et al teach the method wherein each of the substrates comprise an identification code which identifies array related data e.g. identification code (Column 8, lines 1-19) but they do not teach the identification code comprises a communication address. However, Ellison et al teach the similar method of generating an array wherein the array has applied thereto identification code including a communication address from with the identity map will be communicated i.e. customer (¶ 8) wherein the address on the substrate identifies customer and/or billing information. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to include the communication address as taught by Ellison et al in the identification code on the substrate of Perttunen et al to thereby identify customer proving the array samples via the address as taught by Ellison et al (¶ 8) for the obvious benefits of maintaining correct correlations between the customer and the array.

Double Patenting

12.   The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman,* 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi,* 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum,* 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel,* 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).
         A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).
         Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13.   Claims 1-16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,180,351. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to a method of generating an addressable array and differ only in the patent claims recite the additional method step (a) of receiving from a remote station information on a layout of the array and associated identifier and (e) forwarding a second copy of the local identifier to the remote station. However, the open claim language "comprising" recited in the instant claims encompasses the additional method steps of the patent claims.   Therefore, the instant claims are obvious in view of the patent claims.

14.   Claims 10 and 13-16 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 21-24 of copending Application No. 09/775,387. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to a method of generating addressable arrays of biopolymers and differ only in the arrangement of the claim limitations i.e. the limitations of instant claims 13-16 are recited in Claim 21 of the '387 application.   As such, the instant and '387 claims encompass inventions which are not patentably distinct.

        This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Prior Art

15.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure:

Zeleny et al U.S. Patent No. 6,215,894, filed 26 February 1999

Chappell U.S. Patent Application Publication No. 2002/0075490A1

Ebersole U.S. Patent No. 4,219,335

Conclusion

16.   No claim is allowed.

17.   Any inquiry concerning this communication or earlier communications from the examiner should
be directed to BJ Forman whose telephone number is (703) 306-5878. The examiner can normally be
reached on 6:30 TO 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary
Jones can be reached on (703) 308-1152. The fax phone numbers for the organization where this
application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 308-8724
for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should
be directed to the receptionist whose telephone number is (703) 308-0196.

BJ Forman, Ph.D.
Patent Examiner
Art Unit: 1634
November 21, 2002